



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/781,028

02/18/2004

Yoshiharu Baba

TS8069 (US)

2833

7590

10/02/2006

Yukiko Iwata
Shell Oil Company
Legal - Intellectual Property
P.O. Box 2463
Houston, TX 77252-2463

EXAMINER

GOLOBOY, JAMES C

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/781,028

Applicant(s)

BABA ET AL.

Examiner

James Goloboy

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/18/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 13, 16, 22, 25, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Chevron UCBO 7R

(http://web.archive.org/web/20010619041214/www.chevron.com/prodserv/BaseOils/ucbo_prop.htm).

As described on the webpage, Chevron UCBO 7R is a base oil with a kinematic viscosity of 39 mm²/s, a viscosity index of 135, a density of 0.834 g/cm³, and a flash point of 239-240° C, falling within the ranges recited in Claims 1, 4, 13, 16, 22, 25, and 27. The URL of the webpage from the Internet Archive indicates that the website dates from 2001, qualifying it as prior art under 35 USC 102(b).

3. Claim 1, 7, 13, 15, 19, 21-22, 24-26, 28, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Garwood (U.S. Pat. No. 4,975,177)

Garwood, in column 15 lines 1-25 (Table 2), discloses the properties of a lubricant basestock, which Garwood teaches in column 5 lines 24-28 may be derived from a Fischer-Tropsch product, as recited in Claim 7. The lubricant basestocks "1-1" and "3-1" have viscosity indices, kinematic viscosities, and densities falling within the

Art Unit: 1714

ranges recited in Claims 1, 7, 13, 15, 19, 21-22, and 24-26 (density = $(141.5 / (131.5 + \text{API Gravity}))$). In column 14 lines 1-7, Garwood further teaches that the additives such as antioxidants and extreme pressure agents, as recited in Claims 28 and 30, may be added to the lubricant basestocks to form lubricating compositions.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 2-3, 8-9, 14, 23, 29, 33, 40, 47, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garwood in view of Richardson (U.S. Pat. No. 6,362,136).

Art Unit: 1714

The discussion of Garwood in paragraph 3 above is incorporated here by reference. Garwood does not disclose a tertiary alkyl-primary amine additive, nor does Garwood disclose the use of the composition as a gear oil.

Richardson, in column 10 lines 1-14, describes a tertiary alkyl-primary amine additive for a mineral oil-based lubricant composition. Richardson teaches in column 10 line 5 that the additive preferably contains 8 to 22 carbon atoms, strongly overlapping the range recited in Claim 2. In column 10 lines 12-15, Richardson teaches several amines (tert-octylamine, tert-decylamine, tert-dodecylamine, etc.) where the number of carbon atoms falls within the range recited in Claim 2. The use of the additive taught by Richardson in the composition of Garwood also satisfies Claims 8-9, 14, 23, and 29. In column 2 line 27, Richardson teaches that the amine additive (component A) is preferably used in an amount of 0.5 to 5% by weight of the lubricant composition, falling within the range recited in Claim 3.

In Richardson's Claim 41, the use of the lubricating composition as a gear oil is taught. In column 47 lines 43-47 Richardson teaches that a mineral oil may be used as a base oil. If the oil of Garwood is used as a base oil for a lubricant composition containing the additives of Richardson, the composition can therefore serve as a gear oil, as recited in Claims 33, 40, 47, and 54.

It would have been obvious to one of ordinary skill in the art to include in the lubricant composition of Garwood a tertiary alkyl-primary amine, as taught by Richardson, due to its use as an anticorrosion agent and friction modifier, and it would

Art Unit: 1714

have been obvious to use the composition as a gear oil in order to reduce the amount of wear on gears in an engine.

7. Claims 5, 6, 17-18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chevron UCBO 7R in view of Richardson.

The discussions of Chevron in paragraph 2 above and Richardson in paragraph 6 above are incorporated here by reference. The use of the tertiary alkyl-primary amine additive of Richardson in the base oil of Chevron UCBO 7R meets the conditions of Claims 5, 6, 17-18, and 20.

It would have been obvious to one of ordinary skill in the art to include in the lubricant composition of Chevron UCBO 7R a tertiary alkyl-primary amine, as taught by Richardson, due to its use as an anticorrosion agent and friction modifier.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chevron in view of O'Rear (U.S. Pat. No. 6,627,779).

The discussion of Chevron in paragraph 2 above is incorporated here by reference. Chevron discloses a Group III base oil meeting the limitations of Claim 4, but Chevron does not disclose a Fischer-Tropsch process.

In column 7 lines 34-36, O'Rear teaches that Fischer-Tropsch wax, as in Claim 10, is an "ideal feed" for the production of Group III base oils. It would have been obvious to one of ordinary skill in the art to produce the Chevron base oil from a Fischer-Tropsch product due to the above teaching of O'Rear.

9. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chevron in view of Richardson as applied to claims 5-6 above, and further in view of O'Rear.

The discussion of Chevron in view of Richardson in paragraph 6 above is incorporated here by reference. Chevron discloses a Group III base oil meeting the limitations of Claim 4, but Chevron does not disclose a Fischer-Tropsch process.

In column 7 lines 34-36, O'Rear teaches that Fischer-Tropsch wax, as in Claim 10, is an "ideal feed" for the production of Group III base oils. It would have been obvious to one of ordinary skill in the art to produce the Chevron base oil from a Fischer-Tropsch product due to the above teaching of O'Rear.

10. Claims 31-37 and 52-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garwood in view of Ishida (U.S. Pat. No. 4,392,968).

The discussion of Garwood in paragraph 3 above is incorporated here by reference. Garwood discloses a lubricating base oil that meets the conditions of Claim 1, and may include additives to form a lubricating oil composition. Garwood does not specifically disclose the types of oils recited in Claims 31-37 and 52-58.

Ishida, in from column 1 line 65 through column 2 line 3, discloses a lubricating oil composition comprising an oil with a kinematic viscosity of 10 to 10,000 cST at 40° C and a viscosity index of not less than 80, a metal deactivator additive, and other lubricant additives described in column 3 lines 50-55, including some of those disclosed

Art Unit: 1714

by Garwood. The lubricating composition of Garwood fits the requirements for the base oil in the composition taught by Ishida. In column 3 lines 62-68, Ishida teaches that the lubricating composition may be used in a hydraulic oil, machine tool oil, gear oil, compressor oil, heat transfer oil, turbine oil, or bearing oil, as recited in Claims 31-37 and 52-58.

It would have been obvious to one of ordinary skill in the art to use the lubricant of Garwood in a hydraulic, machine tool, gear, compressor, heat transfer, turbine, or bearing oil in order to prevent wear to moving parts in various machines, or to impart or remove heat from an object.

11. Claims 38-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garwood in view of Richardson as applied to claims 2-3 above, and further in view of Ishida.

The discussion of Garwood in view of Richardson in paragraph 6 above is incorporated here by reference. Garwood in view of Richardson discloses a lubricating oil composition that meets the conditions of Claims 2 and 3, and may include additives to form a lubricating oil composition. Garwood in view of Richardson does not specifically disclose the types of oils recited in Claims 38-51.

Ishida, in from column 1 line 65 through column 2 line 3, discloses a lubricating oil composition comprising an oil with a kinematic viscosity of 10 to 10,000 cST at 40° C and a viscosity index of not less than 80, a metal deactivator additive, and other lubricant additives described in column 3 lines 50-55, including some of those disclosed

Art Unit: 1714

by Garwood. The lubricating composition of Garwood in view of Richardson fits the requirements for the base oil in the composition taught by Ishida. In column 3 lines 62-68, Ishida teaches that the lubricating composition may be used in a hydraulic oil, machine tool oil, gear oil, compressor oil, heat transfer oil, turbine oil, or bearing oil, as recited in Claims 38-51.

It would have been obvious to one of ordinary skill in the art to use the lubricant of Garwood in view of Richardson in a hydraulic, machine tool, gear, compressor, heat transfer, turbine, or bearing oil in order to prevent wear to moving parts in various machines, or to impart or remove heat from an object.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Naitoh (U.S. Pat. 6,063,741) discloses base oils meeting the limitations of Claim 1, and some additional lubricant additives.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Goloboy whose telephone number is 571-272-2476. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone

Art Unit: 1714

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCG

Vasu Jagannathan
VASU JAGANNATHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700